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**School of Biological and Life sciences**

Bachelor of Science Honours in Microbiology

Mid Term Examination - Mar 2024

Duration : 90 Minutes

Max Marks : 50

**Sem VI - P1UC604B - Industrial Microbiology**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Describe the bubble column bioreactor with a diagram. K2 (2)
- 2) Define auxotrophic and prototrophic strains. K1 (3)
- 3) Demonstrate the significance of industrial important microorganisms. K2 (4)
- 4) Explain submerged fermentation and its advantages over submerged fermentation process. K2 (6)
- 5) Identify the different waste products used in the formulation of medium in fermentation process. K3 (6)
- 6) Identify the contribution of pioneer scientists in the development of industrial microbiology. K3 (9)
- 7) Compare the importance of different substrates in a fermentation medium: (i) Molasses (ii) Whey (iii) Yeast extract K4 (8)
- 8) Analyze the difference between homo and hetero fermentation process. K4 (12)

**OR**

- Analyze the difference between packed bed bioreactor and photo bioreactor with suitable diagram. K4 (12)